

Step-by-Step Guidance

GHG Emissions Reporting Using the California ARB On-Line Reporting Tool

Cement Plants

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Step-by-Step Guidance for GHG Emissions Reporting Using the California ARB On-Line Reporting Tool

This guidance is intended to provide operators of cement plants step-by-step instructions for reporting their GHG emissions using the on-line reporting tool developed by the California Air Resources Board (ARB). As specified within California's [Regulation](#) for the Mandatory Reporting of Greenhouse Gas emissions, cement plants are required to calculate and report their GHG emissions annually. The GHG reporting regulation includes a definition for cement plants that includes industrial structures, installations, plants, or buildings primarily engaged in manufacturing Portland, natural, masonry, pozzolanic, and other hydraulic cement.

This document focuses primarily on the mechanics of entering your emissions and other data into the on-line GHG reporting tool. It does not provide instructions for calculating facility emissions, explanation of the regulation, or examples of how to compute emissions. If you identify a source of emissions that is required to be reported, but it is unclear how to report the emissions, please contact ARB staff.

For detailed information and help regarding the regulation and computing your facility GHG emissions, please refer to the main [GHG Reporting](#) page (<http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep.htm>). The [Instructional Guidance for Operators](#) includes detailed information about how to calculate GHG emissions for your facility, as well as information to determine applicability to the regulation. [Chapters 1-6](#) describe the overall requirements of the regulation and [Chapter 7](#) was written specifically to assist cement plant operators in meeting the reporting requirements. The [Regulatory Activity](#) link on the main GHG Reporting page includes the full text of the regulation.

<h3>Step 1 Preparing for Reporting</h3>

You will find it helpful to collect some overall information needed for reporting prior to working directly in the reporting tool. You will be able to log in and return to the tool to complete reporting as needed, so all information does not need to be collected or entered all in one session. But the tool does not have an integrated tracking or "completion" wizard to let you know where you are in the reporting process. Therefore, it will be important to track where you are in the reporting process to ensure that all required data are ultimately

submitted. At the end of this document we have provided a form which can be used to help track your progress

In addition, to gathering information needed for reporting, we also strongly recommend reviewing the brief [Reporting Tool Primer](http://www.arb.ca.gov/cc/reporting/ghg-rep/ghgtoolprimer.pdf) (<http://www.arb.ca.gov/cc/reporting/ghg-rep/ghgtoolprimer.pdf>). Because the design and approach used within the tool may be unfamiliar to some, the Primer will give a good orientation to the overall structure and use of the tool, and may help simplify the reporting process. Also, the [Reporting Tool Users Guide](http://www.arb.ca.gov/cc/reporting/ghg-rep/ghgtoolusersguide.pdf) (<http://www.arb.ca.gov/cc/reporting/ghg-rep/ghgtoolusersguide.pdf>) will be an important aid for reporting. Finally it is important to review the relevant chapters of the [Instructional Guidance](#), and be familiar with the portions of the [regulation](#) pertinent to cement plants.

Information to Gather for Reporting

Below is a partial list of information that will be needed for cement plants in order to enter data into the reporting tool. A summary of cement plant data reporting requirements is provided in Table 7.10 ([Chapter 7, Instructional Guidance](#)) and it includes the following general requirements: Facility Level Totals, Stationary Combustion Emissions, Direct Process Emissions, Fugitive Emissions, Efficiency Metrics, Indirect Energy Use, and Electricity Generation/Cogeneration. In many cases, it will be helpful to collect data prior to using the tool to help track reporting progress.

- a. Prepare a list of all stationary combustion equipment that is subject to reporting. The regulation allows for reporting for each individual emitting equipment type or consolidating all stationary equipment into fewer categories. Kiln and non-kiln units must be reported separately, however.
- b. Gather annual facility fuel usage records for each fuel type consumed by stationary combustion and any applicable fuel analysis information.
- c. Compile fuel use information at the last point of metering for those devices for which fuel use is individually metered. When individually metered, the fuel use (but not emissions) of these devices must be reported. Emissions from separately metered devices and other emitting sources can usually be reported at a higher facility (or emitting activity) level. Where fuel use for emitting devices is not independently metered, separate fuel use quantification is not required by the regulation.
- d. If CEMS (continuous emissions monitoring system) is not used to determine kiln emissions, then process emissions would be calculated using the Clinker-Based Methodology provided in section 95110(c) of the regulation. To perform the calculations, it is necessary to collect the input data shown in table 7.5.1 ([Chapter 7, Instructional Guidance](#)). If a

- CEMS is utilized, then process emissions would be reported in combination with kiln combustion emissions.
- e. If there is coal storage onsite, gather the annual facility coal usage and type records to estimate and report the fugitive methane emissions produced from the methane off-gassed by the stored coal.
 - f. Assemble information about the annual clinker consumed, purchased, and sold by the facility and clinker characteristics to determine the plant-specific efficiency metrics.
 - g. Gather information about the quantity of any electricity, thermal or cooling energy purchased for use on-site and/or any electricity generated/co-generated on-site.

Step 2 Facility Registration

- 2.1 Navigate to the Reporting Tool website at <http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-tool.htm>. From here there are links to the reporting tool -- and the identical training site.
- 2.2 Register Your Facility. If you have not already done so, follow the steps in Section 2.1 of the [Reporting Tool Users Guide](#) to register your facility using the ARB ID and Access Code mailed to you by ARB. During registration you will input basic facility and contact information, and create a self-defined User ID and password for accessing the reporting system. If you believe you are subject to reporting and did not receive an initial ARB ID and Access code, it is your responsibility to contact ARB at ghgreport@arb.ca.gov to request access to the Reporting Tool.

Important Note: As the first person to register a facility in the Reporting Tool and upon completion of your account information, you become a Facility Manager. On final completion of your reporting, only a Facility Manager may certify the data for submittal to ARB. The Reporting Tool allows up to two people to be designated as Facility Managers for a facility (or entity).

Step 3 Facility Information
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- 3.1 Basic Facility Information. Once the facility is registered and your personal account is set up, you will add basic information about the facility.

- 3.2 Verify and Update Facility Details. Log into your account using your User ID and password. (The ARB ID and Access Code used to register the account are no longer active.) Section 2.1.4 of the Users Guide describes how to verify or modify address and descriptive information about the facility. Correct any preloaded data (e.g., mailing address) as needed.
- 3.3 Setting Confidential Data Flag. Please note: At the bottom of the facility details page is a check box for "Preferred Confidential." By checking this box, you are indicating that some of the information you are providing to ARB may be considered trade secret and protected under existing California statute. If there is a public request for any of this information, ARB will follow the Public Records Act request procedures before sharing with a third party.
- 3.4 Assigning Primary and Secondary Sector for Reporting. The Facility Details tab also has a space for the Primary Reporting Sector and Secondary Reporting Sectors. The Reporting Tool may include a preloaded designation for the Primary Reporting Sector. Please verify that this designation is correct and modify as needed to represent the reporting sector you are reporting under. If your facility also has a cogeneration unit or electricity generation unit (emergency and portable generators are exempt) you will also use the Secondary Reporting Sectors selection to indicate that you have these operations at your facility.
- 3.5 Provide Physical and Mailing Addresses. Use the Addresses Tab to provide the physical and mailing addresses associated with the facility. Click the save button at the bottom of the screen to ensure that your entries are retained. Click the back button to return to the main pages. See 2.1.4.2 of the Users Guide.
- 3.6 Provide Geographic Location. Use the Geographic Location Tab to provide the latitude and longitude information for the facility. A publicly available website such as <http://www.batchgeocode.com/lookup/> will help identify your latitude and longitude if needed. (Note: This link is provided for information only and no endorsement or assurance of accuracy for the site should be assumed.) An automotive or handheld GPS receiver can also be used to determine latitude and longitude. If needed, Section 2.1.4.3 of the Users Guide describes how to use the GoogleMaps link to verify your latitude and longitude. (Note that the Google link will not automatically enter the longitude and latitude into the reporting tool; you must manually enter that information.)

- 3.7 Assign Facility Contacts. As the first person to register the facility, you are by default a facility manager. This tab allows you to add other users. You can add another facility manager as well as subordinate staff as data reporters. Data reporters do not have the ability to certify the data. Section 2.1.4.4 describes how to add additional facility contacts and how to end contact relationships with the facility, if needed. The Reporting Tool [Primer](#) and [Users Guide](#) further discusses relationships within the tool.

Once you enter the initial information for a new facility contact, the Reporting Tool will email that contact a link and additional information about how to access the tool and complete their personal account information.

- 3.8 Adding Facility Documents. The regulation requires that a facility emissions data report include supplemental information about its parent company or related companies (see 95104(a)(8) of the [Regulation](#)). This information can be developed in a spreadsheet or other type of document and uploaded into the Reporting Tool, as described in Steps 5.4.2 to 5.4.4. The Facility Documents tab described in Section 2.1.4.5 of the Users Guide also provides instructions on how to add documents to the Reporting Tool. The regulation optionally allows this information to be reported directly by the parent company.

The Facility Document tab may be used to add any type of additional documents that the reporter thinks are appropriate. Please note that any information provided to ARB becomes part of the emissions data report and could be requested under the Public Records Act.

<p style="text-align: center;">Step 4 Identifying and Setting-Up Facility Emitting Activities (Adding GHG Emission Sources)</p>
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One of the key concepts of the GHG reporting tool is that prior to reporting fuel use and emissions, the tool first needs to be “told” what all of the facility emitting activities are for the facility. In this way, you are inputting the overall design of the facility from an emitting source perspective. Based on how the facility emissions are reported and the sector-specific requirements of the regulation, “emitting activities” could be either individual emission sources or aggregations of emission sources.

The overall facility configuration is retained from year to year, and does not need to be input again unless there are modifications, additions, or deletions

of emitting activities. For example, in year 1 you would set up facility emitting activities for the sources that are required to be reported. In subsequent years, you will simply update the data associated with those sources. This section provides the steps on how to add emitting activities and sets up your account for reporting when first using the tool. In addition, Section 3 of the Users Guide further illustrates the details of setting up emitting activities.

4.1 Adding Emitting Activities and Fuels

4.1.1 Click on the Emitting Activities Tab. For your first time in the Reporting Tool, there should be no emitting activities listed under this tab. In future years, you will see previously added emitting activities.

4.1.2 Add Emitting Activity. To add an emitting activity, click on the blue Add Emitting Activity button on the bottom of the page as shown in Figure 3-1 of the Users Guide. You will then see the screen shown in Figure 3-2. See the beginning of Section 3 of the Users Guide for a detailed description of an “emitting activity”.

Decision Point: As a cement plant, you may optionally decide to report emissions per type of source, such as at the boiler or heater level, or aggregate and report all stationary combustion and process, etc emissions under

fewer emitting activity types. Typically, most cement plants will aggregate emissions instead of reporting at the equipment level. You will create emitting activities that are consistent with the level of aggregation appropriate for your facility. Keep in mind that the regulation requires separate reporting for kiln and non-kiln units, and separate reporting for any generating and cogeneration units. It is also recommended that multiple kilns be set up as separate emitting activities.

What is an Emitting Activity?

An emitting activity includes emissions from sources like natural gas turbines or boilers, an engine burning landfill gas, or process emissions from asphalt manufacturing.

4.1.3 Assign Name to Emitting Activity. In the Emitting Activity Name box, you need to type in a unique name. For example, if you are planning on reporting emissions separately for each boiler, you could enter Boiler 1, Boiler 2, etc. Or, if you are going to report all your emissions under one category of stationary combustion, you could enter Kiln Stationary Combustion and Non-kiln Stationary Combustion as Emitting Activity names.

- 4.1.4 Select Emitting Activity Category. Typical emitting activities for cement plants include stationary combustion and process emissions from cement kilns, fugitive emissions from on-site coal storage, and other stationary combustion emissions. Each emitting activity is categorized as to type of emissions - stationary, process, fugitive etc. You will choose the appropriate category from the drop down menu. Facilities with CEMS may select Stationary Combustion and Process from this drop down menu to report kiln process and combustion emissions under the same emitting activity. It is recommended that facilities without CEMS set up separate Process and Stationary Combustion emitting activities.

To report Total Organic Carbon (TOC) content in raw materials, as required by section 95110(a)(2)(B) of the regulation, create a separate input titled TOC and choose Process from the drop down menu. Note: A future tool release will include an integrated feature to capture TOC data.

- 4.2.5 Select Activity Type/Equipment. In the Activity Type drop down menu, indicate what type of equipment you are adding or choose multiple sources at the bottom of the list if you are aggregating all sources into one group. Note: for TOC, select Rotary Kiln from this drop down menu.
- 4.1.6 Select Operating Status. In the Status box you will choose operating, unless the equipment was not in operation during the entire reporting year. *All activities that are designated as operating must have emissions reported for them to pass the Reporting Tool QA checks.*
- 4.1.7 Select Aggregation Level for Emitting Activity. In the Aggregation Level drop down menu, select *summed* so your emissions associated with this activity can be added to the facility total emissions. You will only select *supplemental* if these emissions are included under another emitting category, are not required to be separately reported, and are not to be included in the facility total emissions. You will select *optional* for emission activities that are not required to be reported by the regulation.
- 4.1.8 Add Fuels, Feedstocks, Other for Emitting Activity. Under Available Fuels (Fuels, Feedstocks, or Other), use the arrows to add the fuels, feedstocks, or other that are used by your identified stationary combustion and process emitting activities. Example inputs for Process and Stationary Combustion emitting activities for an individual kiln may include Clinker, Coal (Lignite), and other fuels.

For TOC, select all appropriate raw materials from the Available Fuels (Fuels, Feedstocks, or Other) list. If you aggregate emissions for multiple sources, you will need to select and include each of the fuels combusted for those aggregated sources.

- 4.1.9 **SAVE.** Click the Save button at the bottom of the page. If you do not save at this point, all information added for the emitting activity will not be saved.
- 4.1.10 **Repeat to Include All Emitting Activities.** Repeat adding Emitting Activities as described in sections 4.1.2 to 4.1.9 until all the sources of emitting activities for your facility have been entered into the tool. **Emissions, fuel consumption, and cement efficiency metrics are not reported at this point in the process; only emitting activities are set up.** For more information on Adding and Deleting emitting activities please see Section 3.1 of the Users Guide.
- 4.1.11 **Assigning Generating Units.** For those who have electricity generating and cogeneration units, you will also need to report emitting activities for each unit (Section 3.2 of Users Guide). That means you will report equipment and fuel use multiple times; once for the facility total fuel use, and then again for each separate unit. The detailed generating unit-level equipment and fuel use data will not be used to calculate emissions. The generating unit-level data will only be used to provide information to ARB and your verification team later in the reporting program.

4.2 Setting Up Device-Level Fuel Reporting, Last Point of Metering

Devices can be retail natural gas fuel meters, or other electronic measurement devices that measure fuel or electricity.

- 4.2.1 **Assign Devices.** The regulation requires the reporting of fuel consumption at the last point of fuel metering when separate metering is in place. Emissions reporting is not required at this level of detail, only fuel use.

As described in Section 3.3 of the Users Guide, click on the Devices tab to enter device data. Use the Add Device button at the bottom of the page to add

facility devices. Devices in the context of the Reporting Tool refer to emission sources at the last point of fuel metering.

What is a Device?

A device is a representation of the last point of fuel metering at a facility. The facility operator determines the number and naming structure to apply to devices to represent the points of fuel metering.

- 4.2.2 Enter Device Name. In the Device Name box, enter a unique name for that meter or last point of metering. You can use a main meter if the last point of metering is revenue meter at the facility boundary. If there are multiple meters which will be included for reporting fuel use, assign them unique names such as Meter 1-Boilers, Meter 2-Dehydrators, Meter 3-General Activities. A meter may serve one or multiple emitting sources.
- 4.2.3 Report Measurement Method. Under Device Type you must indicate if the fuel usage reported at this measurement point is based on a meter or another approach. Choose "Other" if you are reporting fuel that is delivered and measured that does not use a meter. For example, if coal is delivered to the facility by the weighed truckload, you would choose "Other" as the measurement method.
- 4.2.4 Describe Equipment Served. In the Description text box, enter text describing what equipment the meter feeds, or in the case of biomass above, indicate that this is facility level biomass delivery by truck.

Note: If you have 3 meters on-site (a retail meter for the entire facility, and a separate meter for each of 2 generating units) you will have 3 devices on the device page. You can easily add devices on this screen by choosing a different Device Name, and assigning the fuel information. The amount of fuel metered by these devices or at this point of fuel metering is not entered on this page. At this part of the reporting process, only the configuration of the facility and measurement devices are being entered.

- 4.2.5 SAVE. Click the Save button at the bottom of the page. If you do not save at this point, all information added for the device will not be saved. All of your devices should now appear in the "Device Level Fuel Data Detail" table. The quantity of fuel for each meter is NOT used to calculate emissions. Though emissions are reported at the facility and kiln levels, devices are inputted only to represent downstream fuel activity.

4.3 Setting up Electricity, Thermal or Cooling Energy Purchased for Use On-Site.

In addition to directly emitting activities, electricity (as well as thermal and cooling energy) purchased and cement efficiency metrics data are also required to be reported.

Note: All of the tabs for identifying and setting up emitting activities (Step 4) are accessible by clicking on the word "Facility" at the top left of the main reporting page. To change to reporting emissions for each of these entered activities, select "Annual Reporting" on the top of the page and choose Report Annual Data.

- 4.3.1 To report any indirect energy purchased for use on-site, click on the Energy and Production tab as shown in Figure 3-13 of the Users Guide.
- 4.3.2 Use the arrows to add the Indirect Energy Use Data to the box on the right.
- 4.3.3 SAVE. Click the Save button at the bottom of the page.
- 4.3.4 If required to report any of the other data categories such as steam production or energy production because you have a generating unit, then repeat the steps in this section to add those items to the box on the right hand side of the page.

Step 5
Reporting Fuel Use and Emissions Data
for Facility Emitting Activities

5.1 Selecting Facility for Emissions and Other Reporting

The next series of steps are used to identify the reporting facility, the reporting (i.e., report year, the year for which you are reporting emissions) year, and the level and type of reporting. After these initial selections, then fuel use, fuel-specific data (such as emission factors or carbon content), and other information is entered for emitting activities and fuels. Next, the GHG emissions data are finally inputted for each emitting activity/fuel combination created for the facility.

- 5.1.1 To report emissions for each of the previously entered emitting activities, hover over “Annual Reporting” on the top of the page and choose Create New Submission. You should see a page titled, ‘Select Submission Details.’ See Figures 5-7A and 5-7B in the Users Guide.
- 5.1.2 Select Reporting Year. In the Report Year box, select 2008 to submit emissions for the year 2008.
- 5.1.3 Select Reporting Level. Under Reporting Level, select Facility.
- 5.1.4 Select Data To Be Reported. Under Submission Type, select Fuels and Emissions to report actual emissions data for each emitting activity. You will also need to report Energy and Production data and that selection would be made here. This is described later (Step 6).

- 5.1.5 Click Continue. See Chapter 5.1 of the Users Guide for more detail.
- 5.1.6 Select Facility. Use the next page to select a reporting facility associated with your user account. In most cases, there will only be one facility shown, unless you are associated with multiple facilities. Once the pertinent facility (row) is highlighted in blue (click to choose), click continue.

5.2 Report Fuel Use and Emissions for Facility Emitting Activities

The Reporting Tool incorporates a recursive approach to entering your fuel use emissions data. You will first select your emitting activity. Next you will select a single fuel for that emitting activity (as set up in 4.1) and enter the fuel use, emission factor, and other fuel data. Then, for the selected emitting activity/fuel type combination, you choose the emissions calculation method for each pollutant and provide the emissions data (or it will be calculated by the tool). These steps of reporting fuel use and emissions are repeated for each fuel used by the emitting activity.

Once reporting is complete for a selected emitting activity, the process is repeated for any additional emitting activities for the facility. The steps below describe this process in detail.

- 5.2.1 Selecting Emitting Activity. After completing Step 5.1.6, above, you will see a page titled, 'Review Annual Emissions and Fuel Submission.' See Figure 6.1 in the Users Guide. On initial entry, you will not see any data displayed on the "grid" in the middle of the page.
- 5.2.1 Click on Report Additional Data on the bottom left hand side of the page, just below the grid.
- 5.2.3 Click on the Emitting Activity for which you want to report emissions. Click Continue.
- 5.2.4 Entering Fuel Use for Emitting Activity
 - 5.2.4.1 Select Fuel. Completing Step 5.2.3 will take you to a page titled, "Activity Fuel Use." The grid on this page displays all the fuels you associated with this activity when you initially set up the emitting activity. For a boiler, it may simply be natural gas. For multiple sources, you could see all the fuels used for stationary combustion throughout the facility.

Click on a fuel in the grid to report emissions associated with that fuel for that emitting activity. You will notice that the grayed out section of the page below is no longer grayed-out, but available for data input.

- 5.2.4.2 Enter Fuel Consumed. For the emitting activity and fuel type selected, enter the quantity of fuel or feedstock consumed in the units provided. The regulation is very specific as to what units of fuel used must be reported to ARB, depending on whether the fuel is a liquid, solid, or gas.
- 5.2.4.3 Selecting and Inputting Emissions Calculation Inputs. For cement plants, CO₂ sampling and testing for fossil fuels is required by the regulation (Section 95110(d)), except for Biomass Solids and Start-Up Fuels, for which default emission factors may be assigned. See Table 7.4.2.2 of the *Instructional Guidance*, Cement Plant CO₂ Emission Estimation – Fuel Testing and Sampling Requirements, for a summary. If using a fuel that requires high heat value testing or carbon testing, or if choosing to use these methods, you must enter those additional data here, as applicable. If default emission factors are allowed by the regulation for the selected fuel, you will be able to check the default box and have the information auto-populated in the relevant fields. You may exercise this option for methane and nitrous oxide emissions factors also.

If you estimate and report your process emissions via the Clinker-Based Methodology, then Custom Factors 1, 2, and 3 are entered to represent the EF_{CLI} (clinker emission factor), CKD (cement kiln dust), and EF_{CKD} (CKD emission factor) variables, respectively (See Section 95110(c)(1) of the regulation). However, computation and use of the CKD emission factor and cement kiln dust variables are not required in cases where the cement kiln dust is recycled back to the kiln. This step may be deleted and the equation adjusted accordingly. Thus, Custom Factors 2 and 3 should be reported as 0 unless CKD is *not* recycled to the kiln.

TOC: To estimate and report the TOC content in your raw materials, Custom Factors 1 and 2 are entered to represent the TOC_{R.M.} (0.2% Organic carbon content of raw material) and the CO₂ to carbon molar ratio values, respectively. (See Section 95110(c)(2) of the regulation.) Hence, Custom

Factors 1 and 2 are reported as 0.002 and 3.664, respectively. Select Other for both Custom Factors and select No Unit from the UOM drop down menu for both.

If other methods are used to calculate emissions for the emitting activity, they are directly entered on the Emissions Data pages as described in the steps starting at 5.2.5.

- 5.2.4.5 **SAVE.** Click Save. You will notice that the grid refreshes and now includes emission factors for CO₂, CH₄, and N₂O for that fuel.

At this point, the most linear path is to continue forward and report emissions data for this selected fuel as described beginning at 5.2.5. [Alternatively, it is possible to continue entering the fuel use for additional fuels reported under the emitting activity by using the Back button.]

5.2.5 Entering Emissions Data for Selected Fuel Type and Emitting Activity

- 5.2.5.1 **Select the Fuel Type for Emissions Reporting.** Click on and highlight the fuel for which you just saved inputs on the previous Activity Fuel Use page. Next, click Report Emissions at the bottom of the page. The next page will be titled, 'Report Emissions.' This page should look like Figure 6-11 of the Users Guide.
- 5.2.5.2 **Select Calculation Method for Emissions.** In the middle of the page is a table with CO₂, CH₄, and N₂O across the top. Depending on the fuel type selected, an additional tab labeled Biomass CO₂ may also appear.

Working under each applicable tab, you will choose the reporting method. When the regulation requires calculating the emissions for this fuel and emitting activity outside of the tool, select one of the pre-calculated methods (referenced to the relevant section of the regulation) and a box is provided to input the calculated emissions directly into the Reporting Tool. Refer to section 95110(b) of the regulation for required quantification methods.

Where applicable (e.g., Biomass Solids, Start-Up Fuels, CH₄ and NO₂ Emissions), cement plants may utilize default emission factors and the factors are included in a calculation tool within the system. To report using this method, you will choose the first method in the list titled, 'Default Emission Factor and Default Heat Content CO₂ (95125(a)) - Calculation Tool'. Once you choose a method, the general formula and then the complete formula for calculating emissions will appear below the method box.

- 5.2.5.3 Select Emissions for Reporting. Click on the Report Emissions selection box on this tab for CO₂ on the upper right hand corner of the window. See Figure 6-12 of the Users Guide. **Important:** If this box is not checked, the emissions will not be included in the emissions total.

Following checking the Report Emissions box, a new grid will appear at the bottom of the page, displaying the calculated values for that gas.

- 5.2.5.4 *De Minimis* Designation. If you choose to designate any of the emissions associated with a specific emitting activity and fuel as *de minimis* because you have used a simplified estimation method, check the *de minimis* box provided for each of the gases, shown under each of the GHG gas tabs (as shown in Figure 6-12 of the Users Guide) below the comment box. Remember that *de minimis* emissions may not exceed 3 percent of total facility emissions, up to 20,000 metric tons CO₂e.

- 5.2.5.5 Add Additional Gases - Add Emissions and Methods for Each Gas for the Selected Fuel and Emitting Activity. For the selected fuel and emitting activity, return to Step 5.2.5.2, and select the appropriate tabs for CO₂, N₂O, CH₄, or Biomass CO₂, as required. Follow the steps provided for reporting the emissions and calculation method for each gas.

- 5.2.5.6 SAVE and Review Emissions Entries. Look at the Review Results grid at the bottom of the page (see Figure 6-14 of the Users Guide). Once all of the input emissions data are shown for each of the gases entered for the selected fuel type and emitting activity, click SAVE. If save is not selected, the entered data and selections will not be retained.

- 5.2.6 Add Emissions for Additional Fuels for Selected Emitting Activity (as needed).** If there are additional fuels associated with the selected emitting activity, hit the Back button after you have saved. This will return to the screen that allows selection of additional fuels for the emitting activity.

Returning to step 5.2.4, select another other fuel type associated with the emitting activity and report the emissions data and methods used for each of the fuels and associated emissions. Repeat this step until emissions are reported for each fuel reported under the emitting activity. See Figure 13 in the [Users Guide Primer](#) for an illustration of this recursive approach to entering the fuel use, emission factors, estimation approach, and emissions using the reporting tool.

- 5.2.7 Complete Fuel Use and Emissions Entry for All Emitting Activities.** The process described by Steps 5.2 through 5.2.6 is repeated for every emitting activity you set up and for each fuel associated with that activity.

To report for the next emitting activity click to select the activity from the Review Annual Emissions and Fuels Submission page (see Figure 6-16 in the Users Guide). If not on this page, a shortcut is to first select the Facility Tab in blue at the top of the page. Select your facility. Next click the Facility and Unit Submissions tab in the middle of the page, click the link for the Submissions ID for the “Emissions and Fuels” submission type. This should bring you to the page showing all of the emitting activities created for the facility in Step 4. Choose the next emitting activity (Figure 6-16) and follow steps 5.2 through 5.2.6 to report emissions for all fuels associated with this next emitting activity.

5.3 Reporting Device Level - Last Point of Metering Fuel Use

- 5.3.1 Report Fuel Throughput for Meters.** Once you have completed entering the emissions associated with emitting activities, you must next report fuel throughput at the last point of metering, where applicable for the facility. If needed, you would have set up and defined these devices in Step 4.2.
- 5.3.2** Click on Facility at the top of the page, click on your facility, click on the Facilities and Unit Submissions tab in the middle of the

page, click the Submissions ID of your facility for Emissions and Fuels, click the red tab "Device Level Fuel Use Data Detail."

- 5.3.3 Click Report Additional Data at the bottom left hand side of the page. See Figure 6-17 of the Users Guide.
- 5.3.4 Enter Device Fuel Data. You should be on a page titled, 'Add Device Level Fuel Data.' See Figure 6-18 of the Users Guide for more detail.
- 5.3.5 At the bottom of the page you will see a box with the title Report Fuel Use. In the drop down menu for device name, you should see any unique names that you set up in Step 4.2. Select the first one.
- 5.3.6 Select the fuel that was measured by that device. The fuel type was already inputted when creating each emitting activity, but you make the selection again for device fuel use reporting. You can also add additional fuels for the device here.
- 5.3.7 After selecting the fuel, enter the quantity measured at that point.
- 5.3.8 Enter any comments and then click SAVE. At this point the grid above will be populated with the data you just entered for that device.
- 5.3.9 Repeat steps 5.3.5 through 5.3.8 for each device or last point of metering that you set up in 4.2.

5.4 Uploading Supporting Documentation for the Clinker-Based Methodology.

- 5.4.1 The regulation requires the reporting of additional data not currently captured by the tool. For the 2009 report, you will need to upload a supporting document showing the derivation of your plant-specific clinker emission factor. The document should provide the following: lime (CaO) content of clinker (percent), magnesium oxide (MgO) content of clinker (percent), non-carbonate CaO (percent), and non-carbonate MgO (percent). This will address regulation sections 95110(a)(2)(A)(1.)(b)-(e). A future tool release will include an integrated feature to capture these data.
- 5.4.2 Click on the Annual Reporting tab at the top of the page, click the Submission ID of your facility for Emissions and Fuels, and click on the Next tab.

- 5.4.3 Click the red tab "Supporting Documentation."
- 5.4.4 Click the blue tab "Add." Use the browse feature to locate your document. To input the nature of the uploaded document, from the Status dropdown menu, select either Public or Private. Enter a document description and click the blue tab "Add" to upload your document.
- 5.4.5 Repeat steps 5.4.1 through 5.4.3 for each additional document to be uploaded.

Step 6
Reporting Indirect Energy Use, Cement Efficiency Metrics, and Other Data

6.1 Reporting Indirect Energy Use

- 6.1.1 Follow all of the steps in 5.1 (Click on Annual Reporting, Create New Submission, etc.), but this time select "Energy and Production" under the Submission Type. Click continue.
- 6.1.2 Next, select your facility and click continue.
- 6.1.3 You should already be on the Indirect Energy tab in the middle of the page. Click Add below that grid. This will take you to a Report Data page. See Figure 7-1 of the Users Guide for a screenshot.
- 6.1.4 Under Select Category, choose indirect. (That should already be chosen as the default.)
- 6.1.5 Under Energy Type, choose electricity or thermal.
- 6.1.6 Enter the quantity bought and used.
- 6.1.7 You can use the Select Entity button to bring up a list of retail providers and see if yours is on the list. You can also use Select Facility, if you bought from a particular facility.
- 6.1.8 If you are not able to find your energy supplier on the lists provided through the Select Facility or Select Entity buttons, enter the name manually. If you know the EIA number, please enter that also.
- 6.1.9 Click SAVE. If you do not save, information added during these steps will not be retained.

6.2 Reporting Cement Efficiency Metrics

- 6.2.1 To report cement efficiency metrics as specified by section 95110(e) of the regulation, click on the Cement Efficiency Metrics tab in the middle of the page. This will take you to a Report Cement Efficiency Metrics Data page. See Figure 7-14 of the Users Guide for a screenshot.
- 6.2.2 Input the total amount of clinker in metric tons.
- 6.2.3 Input the amount of clinker directly sold in metric tons.
- 6.2.4 Input the amount of own clinker consumed in metric tons.
- 6.2.5 Input the amount of clinker added to your stock in metric tons.
- 6.2.6 Under Type Clinker Substitute Consumed, choose Gypsum, Limestone, CKD, or Other.
- 6.2.7 Input the amount of clinker substitute consumed in metric tons.
- 6.2.8 Under Type of Cement Substitute Consumed, choose Gypsum, Limestone, CKD, or Other.
- 6.2.9 Input the amount of cement substitute consumed in metric tons.
- 6.2.10 Click SAVE. If you do not save, information added during these steps will not be retained.

<p style="text-align: center;">Step 7 Quality Assurance Checks and Prepare for Certification</p>
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- 7.1 There are two separate steps for certification: Certifying Fuels and Emissions data, and Certifying Energy and Production data. Navigate to the Facility and Unit Submissions tab: Click on Facility at the top of the page, click on your facility, click on the Facilities and Unit Submissions tab in the middle of the page. Here you will see IDs for Fuels and Emissions data and another ID for Energy and Production data.

- 7.2 Click the ID for the emissions and fuels row. You will now be on a page titled, Review Annual Emissions and Fuels Submission. These are all of the emitting activities for which you reported emissions.
- 7.3 Click Review Submission QA Checks at the bottom of the page.
- 7.4 The next page will provide any warnings or errors associated with your fuels and emissions data submittal. You should review carefully to see if the tool has identified any errors you made in your data entries. 'Warning' errors do not prevent you from certifying your emissions report, but you should be able to explain them. 'Critical' errors prevent certification and must be resolved.
- 7.5 If you have no 'Critical' errors, you can click ready for certification at the bottom of the page. This indicates to a facility manager that they should consider the data complete for fuels and emissions, review and then certify before the applicable reporting deadline.
- 7.6 Once you click Ready for Certification, the Annual Reporting page will load. Next, select the Energy and Production Data row by clicking on it and follow steps 3-5 above to indicate this data is also ready for certification by the facility manager. This is a 2-step process. Make sure you certify both sets of data. See Section 9.0 of the Users Guide for more details about QA checks and changing the status to Ready for Certification.